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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,977	04/14/2000	John M. Polo	930049.489/1593.004	2230

7590

09/25/2003

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EXAMINER

LI, BAO Q

ART UNIT

PAPER NUMBER

1648

DATE MAILED: 09/25/2003

28

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/551,977

Applicant(s)

POLO ET AL.

Examiner

Bao Qun Li

Art Unit

1648

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 17, 19, -23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 28.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 17 and 19-23 are pending.

#### ***Response to Amendment***

This is a response to the amendment, paper No. 27, filed 08/01/03. The specification has been amended. Claim 17 has been amended. Claims 17 and 19-23 are pending before the examiner.

Please note any ground of rejection(s) that has not been repeated is removed. Text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

#### ***Declaration of John M Polo***

The Declaration under 37 CFR 1.132 filed on July 28 has been acknowledged. However, it is sufficient to overcome the 112 1<sup>st</sup> paragraph rejection of claims 17 and 21-23 based upon Dr. Polo's statement that mutation of an amino acid residue in the specified region of amino acid residues 158-162 of alphavirus E2 protein in view of the disclosure of the specification and state of art, a person of skill in the art would surmise that mutations in this region would be much more likely to exhibit DC-tropism by using a routine experimentation (see paragraph 8 on page 3).

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17 and 21 are still rejected under 35 U.S.C. 102(b) as being anticipated by Glasgow et al. (Virology 1991, Vol. 185, pp. 741-748) on the same ground as stated in the previous Office Action.

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3. Applicants argue that Glasgow et al. do not teach the virus particle capable of infecting human dendritic cells (DC). Hence, the claims 17 and 21 can not anticipate the claimed invention.

4. Applicants' argument has been respectfully considered; however, it is not found persuasive. Because, while Glasgow et al. do not teach the DC tropism characteristic, the recombinant Semliki Forest virus (SFV) disclosed by Glasgow et al. comprises two amino acids substitute mutations that are just located in the same region of claimed positions 158-162, the SFV particle with an identical structural characteristic would inherently exhibit the same biological function. Therefore, the rejection is maintained.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 17 and 21 are still rejected under 35 U.S.C. 102(a) as being anticipated by Glomb-Reinmund et al. (J. Virol. 1998, Vol. 72, pp. 4281-4287) on the same ground as stated in the previous Office Action.

7. Applicants argue that Glomb-Reinmund et al. do not teach the virus particle capable of infecting human dendritic cells (DC). Hence, the claims 17 and 21 can not anticipate the claimed invention.

8. Applicants' argument has been respectfully considered; however, it is not found persuasive. Because, while Glomb-Reinmund et al. do not teach the DC tropism characteristic, the recombinant Semliki Forest virus (SFV) disclosed by Glomb-Reinmund et al. comprises an amino acid substitute mutations that is just located in the same region of claimed positions 158-162, the SFV particle with an identical structural characteristic would inherently exhibit the same biological function. Therefore, the rejection is maintained.

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***Allowable subject matter***

Claims 19-20 and 22023 are free of rejections. However, they are not in the condition for allowance because they dependent on the rejection claim 17.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Qun Li whose telephone number is 703-305-1695. The examiner can normally be reached on 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 703-308-4027. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Bao Qun Li

September 22, 2003

Handwritten signature of James C. Housel in black ink, with the date 9/23/03 written below it.

JAMES HOUSEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600